

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 40

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte LEONARD A. BARBER

Appeal No. 1997-2335
Application No. 08/367,913

HEARD: July 10, 2000

Before GARRIS, PAK, and KRATZ, Administrative Patent Judges.
KRATZ, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 51-60, which are all of the claims pending in this application.

BACKGROUND

Appellant's invention relates to a vinylidene fluoride (VDF) hexafluoropropylene (HFP) copolymer having a major vinylidene fluoride homopolymer domain. According to

appellant, the claimed copolymer has "... greater melt flow, lower flexural modulus, improved impact resistance, and/or improved chemical resistance, but without sacrifice to the use temperature of the polymer" as compared to uniformly random VDF/HFP copolymers (specification, page 5 and brief, page 3). An understanding of the invention can be derived from a reading of claim 51, the sole independent claim on appeal, which is reproduced below.

51. A vinylidene fluoride-hexafluoropropylene copolymer comprising one or more discrete vinylidene fluoride-hexafluoropropylene copolymer domains and one or more discrete vinylidene fluoride homopolymer domains including a major vinylidene fluoride homopolymer domain which contains at least about 50% of the vinylidene fluoride content of the copolymer, said copolymer having a hexafluoropropylene content of from about 1% to about 20% by weight of the copolymer.

The sole prior art reference of record relied upon by the examiner in rejecting the appealed claims is:

Tournut et al. (Tournut), "SOME ASPECTS OF THERMOPLASTIC COPOLYMERS OF VINYLIDENE FLUORIDE," ATOCHEM C.R.R.A.¹

¹ According to appellant, the cited Tournut reference "... is a three-page print of a poster by Tournut presented at a joint meeting of the Third Chemical Congress of North America and the 195th American Chemical Society National Meeting in

Claims 51-60 stand rejected under 35 U.S.C. § 103 as being unpatentable over Tournut.²

OPINION

Upon careful consideration of the opposing arguments presented on appeal, we concur with appellant that the applied prior art fails to establish a prima facie case of obviousness of the claimed subject matter. Accordingly, we will not sustain the examiner's rejection.

At the outset, we note the examiner (answer, page 4) has essentially agreed with appellant's interpretation of the vinylidene fluoride homopolymer domain of Tournut's copolymers as further set forth in the declaration of Dr. Wempe (Paper No. 19 of parent application No. 08/065,700). In light of the above, we shall decide this appeal based on a construction of

Toronto, Canada on June 7, 1998" (Paper No. 4 of grandparent application No. 07/799,452). We note that appellant does not challenge the availability of Tournut as available prior art to the herein claimed invention in the brief.

² Since the other grounds of rejection set forth in the final rejection (Paper No. 30) were not set forth in the examiner's answer we assume that these other grounds of rejection have been withdrawn by the examiner. See Ex parte Emm, 118 USPQ 180, 181 (Bd. App. 1957).

Tournut's exemplified copolymers that is consistent with the understanding of Tournut's disclosure as reasonably agreed upon by the examiner and appellant given the present record.

As the examiner explains (answer, pages 4 and 5), Tournut's exemplified copolymers have a smaller (21.7%) VDF homopolymer domain than the major VDF homopolymer domain containing at least about 50% of the vinylidene fluoride of the copolymer of appellant's claimed invention. It is the examiner's position that "... it would be obvious to raise said VDF to 50% or 70% in order to get the properties close to the homopolymer; which in some circumstances [has] been described by the reference as desirable" (answer, page 5).

The examiner's conclusion appears to be based on the premise that it would have been obvious to one of ordinary skill in the art to have optimized the copolymer of Tournut by increasing the amount of VDF homopolymer in the copolymer of Tournut so as to obtain desired properties closer to those of the homopolymer. However, a review of the applied reference reveals that Tournut was interested in obtaining a copolymer with a melting point close to that of the homopolymer but with a flexural modulus that was much lower than that of the homopolymer. Tournut apparently achieved this aim by forming copolymers with a VDF homopolymer domain containing significantly less than the at least about 50% of the

vinylidene fluoride of the copolymer as claimed herein as evidenced by the heterogeneous copolymers reported in the table on the third page of the Tournut reference which have smaller VDF homopolymer domains as noted by the examiner (answer, page 4, last paragraph).

The examiner has not presented sufficient evidence to establish or adequately explained why Tournut would have suggested to one of ordinary skill in the art the preparation of a copolymer with a much greater VDF homopolymer domain as claimed herein given that the homopolymer has a higher flexural modulus than that desired by Tournut. On this record, the examiner has not convincingly demonstrated that one of ordinary skill in the art would have been led to a copolymer corresponding to the claimed copolymer with a VDF homopolymer domain size and high relative amount of the total copolymer VDF contained therein by an optimization of the copolymer of Tournut. See In re Sebek, 465 F.2d 904, 907, 175 USPQ 93, 95 (CCPA 1972).

For the foregoing reasons, we find that the examiner has not established a prima facie case of obviousness. Because we reverse on this basis, we need not reach the issue of the

sufficiency of the asserted showing of unexpected results (brief, pages 12-14). See In re Geiger, 815 F.2d 686, 688, 2 USPQ2d 1276, 1278 (Fed. Cir. 1987).

CONCLUSION

To summarize, the decision of the examiner to reject claims 51-60 under 35 U.S.C. § 103 as being unpatentable over Tournut is reversed.

REVERSED

BRADLEY R. GARRIS)	
Administrative Patent Judge)	
)	
)	
)	
)	BOARD OF PATENT
CHUNG K. PAK)	APPEALS
Administrative Patent Judge)	AND
)	INTERFERENCES
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PETER F. KRATZ)	
Administrative Patent Judge)	

PFK/sld

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APPEAL NO. [Appeal No.] - JUDGE

APPLICATION NO. [Application No.]

APJ KRATZ

APJ [APJ # 2]

APJ [APJ # 3]

DECISION: [Outcome]ED

Prepared By:

DRAFT TYPED: 29 Mar 01

FINAL TYPED: